

CLEARANCE MEMORANDUM

UNCLASSIFIED

0239-0012

Program
Information Sciences Division

University of Maryland
College Park, Maryland 20742

1. Statement of Facts

Under Contract Nonr 5144(00) the Contractor has been performing research since 1 December 1965 with the completion date presently scheduled for 30 November 1969. Recently, a proposal was submitted in which the Contractor requested continuation of the project for an additional year at an increase in the total fixed price of \$14,917.00.

The Scientific Officer has approved the proposal from a technical point of view, has made the necessary funds available and has requested that appropriate contractual action be taken.

When this contract was originally written, it was anticipated that it would be very limited in scope and short-termed in nature. The total fixed price of the original contract was only \$1,225.00. The program has subsequently expanded a great deal and it appears that it will continue for a few years according to the Scientific Officer. In view of this, it is considered to be in the interest of the Government to award a Task Order to support this project in the future as opposed to continuing a fixed price contract.

2. Description of Work

The Contractor will conduct research leading towards a unified theory of image processing.

3. Analysis of Cost

Personnel

Principal investigator, Dr. Azriel Rosenfeld

20% of time for 12 mos. The contract is
requested to pay half of summer salary (1 mo.) \$2,500.

Faculty Research Assistant, 25% of time for
12 mos.

3,750.

Secretary, 25% of time for 12 mos.

1,800.

TOTAL SALARIES AND WAGES \$ 8,050.00

(continued on Page 2)

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Contract Number: N00014-67-A-0239-0012

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3. Analysis of Cost (Continued)

BROUGHT FORWARD	Total Salaries and Wages	\$ 8,050.00
<u>Expendable supplies and materials</u> (Computer tape, punch cards, photographic film, etc.)		100.00
<u>Travel</u> One trip to IEEE workshop on picture languages (Honolulu, Nov. 1970)	\$ 500.00	
One trip to COINS-69 (Miami, Dec. 1969)	200.00	
One trip to Spring Joint Computer Conference	100.00	
	TOTAL TRAVEL	800.00
<u>Publications and reports</u> Page charges and reprint costs for articles published in journals	500.00	
Internal reproduction charges for technical reports, copying, etc.	300.00	
	TOTAL PUBLICATIONS AND REPORTS	800.00
<u>Communications, telephone, postage</u>		100.00
<u>Computer Costs</u> Univac 1108, one hour @ \$720/hr.		720.00
<u>Employee benefits</u> Teacher retirement @ 4.83%	306.00	
Employee retirement @ 4.05%	73.00	
Social security @ 4.8% up to \$7800	180.00	
Hospitalization @ 2.50/member/month	38.00	
	TOTAL EMPLOYEE BENEFITS	559.00
<u>Indirect costs</u> Overhead @ 47.06% of salaries and wages		3,788.00
	TOTAL ESTIMATED BUDGET	\$14,917.00
	ROUNDED TO	\$15,000.00

Salaries included in the above budget are in accordance with the Contractor's current salary policy. Overhead is computed at the latest approved rate of 47.06% of salaries. The Scientific Officer considers the estimates for supplies, travel, publications, communications, and computer costs to be reasonable and necessary for the completion of the proposed research.

4. Period of Performance

The period of performance of Contract Nonr 5144(00) which began 1 December 1965 will end effective 30 November 1969.

The period of performance of Task Order N00014-67-A-0239-0012 will begin 1 November 1969 for administrative purposes and will end 30 November 1970.

Contract Number: N00014-67-A-0239-0012

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5. Other Pertinent Information

The Basic contract will be reviewed to insure the inclusion of the latest required clauses and alterations.

The principal investigator for this Task Order will be Professor Ariel Rosenfeld.

6. Authority and Reasonableness

Authority for the negotiation of the proposed Task Order is 10 U. S.C. 2304(a)(5), since it is with an educational institution.

In the opinion of the undersigned, the terms and conditions as outlined above, appear to be fair, reasonable, and in the interest of the Government.

R. H. REGISTER
Contract Specialist

CLEARANCE MEMORANDUM

NR 049-216/13-6-69
Contract Number: Nonr 5144(00)
Modification Number: M-4

UNCLASSIFIED

24 June 1969

Information Systems Branch
Mathematical Sciences Division

University of Maryland
Computer Science Center
College Park, Maryland 20742

1. Statement of Facts

The University of Maryland has proposed the acceleration of Contract Number Nonr 5144(00). By letter dated 5 June 1969 this acceleration will add an additional programmer to the project staff for the summer to make possible additional work on web grammars and their application to picture description, using RSVP system development on the project, to set up and research the required graph structures.

The cognizant Scientific Officer has reviewed this proposal from a technical aspect, approved it, and by Procurement Request dated 13 June 1969 he has made available funds in the amount of \$2,500.00 for the support of the proposed research.

2. Analysis of Price

Budget

Programmer's salary (\$100/week for 14 weeks)	\$1,400.00
Social security (4.8%)	67.20
Computer time ($\frac{1}{2}$ hour at \$720 per hour)	360.00
Indirect costs (47.06% of salary)	<u>658.84</u>
(Rounded off to \$2,500.00)	2,486.04

The salaries listed above are in accordance with the Contractor's current salary policy. The overhead rate of 46.07 percent of salary is in accordance with the Contractor's most recently approved overhead rate and, consequently, the price charged to overhead is considered to be reasonable. The remaining items listed above are considered to be reasonably priced and to be set forth in sufficient detail.

3. Other Pertinent Information

The work description presently set forth in this contract is considered to be adequate to cover the work to be performed by this modification.

This modification will not change the period of performance of Contract Number Nonr 5144.

Contract Number: Nonr 5144(00)

Page 2

No advertising costs have been included in the Contractor's budget that are prohibited by the current DOD Appropriation.

4. Authority and Reasonableness

Authority for the negotiation of the proposed contract is 10 U.S.C. 2304(a)(5) since it is with an educational institution.

In the opinion of the undersigned, the terms and conditions of the proposed contract, as outlined above, appear to be fair, reasonable, and in the interest of the Government.

(b) (6)

FLETCHER A. COOKE
Contract Specialist

CLEARANCE MEMORANDUM

NR 049-216/11-19-68
Contract Number: Nonr 5144(00)
Modification Number: 3

UNCLASSIFIED

16 December 1968

Information Systems Branch
Mathematical Sciences Division

University of Maryland
Computer Science Center
College Park, Maryland 20742

1. Statement of Facts

A proposal for the renewal of Contract Nonr 5144(00) has been submitted to the Office of Naval Research by the University of Maryland. Under this contract, the Contractor has been and will continue to perform research leading towards a unified theory of Image Processing.

The cognizant Scientific Officer has technically reviewed and approved this proposal and by Procurement Request dated 10 November 1968, has made available funds in the amount of \$15,000.00 for the support of the proposed research. The Scientific Officer also requested that the period of performance be extended through 30 November 1969.

2. Analysis of Price

Salaries

Principal investigator - 2 months on contract, but only one month of the time will be charged to the contract	\$ 2,100
Assistant Professor - 2 months on contract	2,600
Faculty research Assistant - 3 months on contract	1,900

Equipment

Expendable supplies	300
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Travel

Visit groups in Great Britain, doing closely-related research, to obtain pertinent Information	750
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Publication costs

Reports and journal page charges	750
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Other direct costs

Computer time (5 hours @ \$684)	3,420
Social security, hospitalization and retirement benefits	540

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Contract Number: Nonr 5144(00)
Modification Number: 3
Page 2

2. Analysis of Price (continued)

<u>Overhead</u> (40% of salaries)	\$ 2,640
TOTAL	<u>\$15,000</u>

The prices charged to salaries in the above budget are in accordance with the Contractor's current salary policy. Since the price charged for overhead is based on a rate of 40% of salaries which is the Contractor's latest approved rate, the price charged is considered to be reasonable. The remaining items listed in the above budget are considered to be set forth in sufficient detail and are reasonably priced.

3. Other Pertinent Information

The work description presently set forth in Section A of this contract is considered to be adequate to cover the work to be performed by this modification.

4. Authority and Reasonableness

Authority for the negotiation of the proposed modification is 10 U.S.C. 2304(a)(5) since it is with an educational institution.

In the opinion of the undersigned, the terms and conditions of the proposed modification appear to be fair, reasonable, and in the interest of the Government.

(b) (6)

FLETCHER A. COOKE
Contract Specialist

CLEARANCE MEMORANDUM

NR 049-216/11-2-67
Contract Number: Nonr-5144(00)
Modification Number: 2

UNCLASSIFIED

1 February 1968

Information Systems Branch
Mathematical Sciences Division

University of Maryland
Computer Science Center
College Park, Maryland 20742

1. Statement of Facts

A proposal for the renewal of Contract Nonr-5144(00) has been submitted to the Office of Naval Research by the University of Maryland. Under this contract the contractor has been and will continue to perform research leading towards a unified theory of Image Processing.

This proposed renewal has been technically reviewed and approved by the cognizant Scientific Officer who has made available funds to the extent of \$17,000.00 for the period beginning 1 December 1967 and ending 30 November 1968.

2. Analysis of Price

<u>Salaries</u>	<u>Man</u> <u>Months</u>	<u>Cost</u>
Principal Investigator	2	\$ 1,850
Senior Research Programmer	5	5,500
Faculty Research Assistant	4	2,000
<u>Equipment</u>		
Expendable supplies		159
<u>Travel</u>		
Attendance at IFIP Congress, Edinburgh, Scotland, and International Pattern Recognition Workshop, Delft, Holland, August 1968		500
<u>Publication Costs</u>		
Reports and journal page charges		300
<u>Other Direct Costs</u>		
Computer time (8 hours @ \$263/hr)		1,690
Social Security, hospitalization, retirement benefits		1,261
<u>Overhead (40% of Salaries)</u>		<u>3,740</u>
TOTAL		\$17,000

The salaries listed in the above budget are in accordance with the contractor's current salary policy.

Contract Number: Nonr-5144(00)

Modification Number: 2

Page 2

2. Analysis of Price (continued)

The \$3,740.00 listed under overhead is computed at a rate of 40% of salaries which is the rate which the Office of Naval Research presently has with the University of Maryland. In view of this fact the price charged for overhead is considered to be reasonable and acceptable.

The items listed in the above budget are considered to be reasonable and sufficiently explained.

3. Other Pertinent Information

The work description presently set forth in Section A of the Schedule is considered to be adequate to cover the work to be performed by this modification.

4. Authority and Reasonableness

Authority for the negotiation of the proposed contract is 10 U.S.C. 2304(a)(5), since it is with an educational institution.

In the opinion of the undersigned, the terms and conditions of the proposed contract appear to be fair, reasonable, and in the interest of the Government.

(b) (6)

FLETCHER A. COOKE
Contract Specialist

CLEARANCE MEMORANDUM

NR 049-216/8-25-66

Contract Number: Nonr 5144(00)

Modification Number: 1

UNCLASSIFIED

26 September 1966

Information Systems Branch
Mathematical Sciences Division
Office of Naval Research

University of Maryland
Computer Science Center
College Park, Maryland

1. Statement of Facts

On April 28, 1966 the Contractor submitted a written proposal to continue the research on the theory of image processing for a one year period and requested additional funds in the amount of \$19,765.00 to support the work.

The Office of Naval Research, Information Systems Branch, Mathematical Sciences Division, reviewed the Contractor's proposal from a technical standpoint, approved the same, and submitted Procurement Request dated 25 August 1966 in the amount of \$19,765.00 to support the project for the period requested by the Contractor and recommended that an appropriate modification to the contract be negotiated.

2. Description of Work

The Description of work currently in Section A of the Schedule to the contract is considered adequate for the continuation.

3. Analysis of Price

Salaries

Principal Investigator - 2 man months	\$1,710.00
Senior Research Programmer - 6 man months	6,000.00
Secretary II - 6 man months	2,550.00

Equipment

Expendable supplies (punch cards, film, plotter paper, etc.)	300.00
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Travel

(Attendance at specialized meetings)	500.00
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Publication Costs

(Reports and journal page charges)	500.00
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Other Direct Costs

Computer time (10 hours @ \$250)	2,500.00
Social Security and retirement benefits	1,088.00

Overhead

45% of salaries	4,617.00
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TOTAL

\$ 19,765.00

Contract Number: Nonr 5144(00)

Modification Number: 1

Page 2

3. Analysis of Price Cont'd

The salaries being paid are in line with the current salary policy of the University. Salaries, overhead thereon, and fringe benefits constitute the major costs of the continuation. It is noted that the University is contributing \$1,650.00 as cost-sharing in the research. This represents approximately $\frac{1}{2}$ of the salary that will be paid to the Principal Investigator.

4. Overhead

The overhead rate of 45% is acceptable.

5. Period of Performance

Research, by this modification, will extend the period of performance through 30 November 1967. *mb*

6. Other Pertinent Information

The Patent Rights (**License**) Clause has previously be determined as appropriate for this contract.

The contract will be reviewed to insure the inclusion of all currently applicable clauses and modifications.

7. Authority and Reasonableness

Authority for the negotiation of the proposed contract modification is 10 U.S.C. 2304(a)(5), since it is with an educational institution.

In the opinion of the undersigned, the terms and conditions of the proposed contract modification, as outlined above, appear to be fair, reasonable, and in the interest of the Government.

(b) (6)

JAMES TESLER
Contract Specialist



DEPARTMENT OF THE NAVY
OFFICE OF NAVAL RESEARCH
WASHINGTON, D. C. 20360

Fixed-price (B0)

IN REPLY REFER TO
ONR: 650: HIR:

RN

17 Feb. 66

From: Contracting Officer
To: ONR Branch Office S. E. Area. Wash.

Subj: Assignment of Administration of Contract Number Nonr-5144(00).

Encl: (1) Subject Contract (3 copies)

1. This letter assigns to you the contract administration responsibility for the subject contract and designates you as the authorized representative of the Contracting Officer. The duties to be performed may be redelegated by you to personnel under your jurisdiction.
2. Scientific cognizance of the work is under the Scientific Officer named in the contract.
3. Correspondence directed to the Contractor will be forwarded via the assigned Contract Administrator as circumstances permit. Normally, the Contractor will be expected to forward correspondence via the Contract Administrator. Where time and circumstances do not permit this procedure, the Contractor should forward to the Contract Administrator copies of letters sent directly to other addressees.
4. In performing these administration functions, you will be guided by the Armed Services Procurement Regulation and by the provisions of the Office of Naval Research Contractors' Manual insofar as these relate to fixed-price contracts. The responsibilities hereby delegated include:
 - a. Certification of the Contractor's invoices, as the representative of the Contracting Officer, in accordance with the payment provisions in the contract.
 - b. Maintaining liaison with the Contractor and the Contracting Officer on business aspects and progress of performance.
 - c. Property administration.
 - d. Contracting for costs (packing, crating and handling) incident to removal of Government property from Contractor's plant. (An open-end allotment is available for this purpose.)

Fixed-price (BO)

ON: C. D. B. C.

- e. Issuance of Government bills of lading for authorized shipments.
 - f. Conducting the contract management aspects of the small business and labor surplus programs, as prescribed, to assure that small business firms and contractors located in labor surplus areas have the opportunity to compete as subcontractors.
 - g. Performing equal employment opportunity functions in accordance with Departmental directives.
5. The Contract Administrator should furnish such assistance to the Contractor as may be appropriate in accomplishing the objectives of this contract. Your Office should make note of any evidence which might indicate that the contract is not being carried out as efficiently and expeditiously as possible and report any such significant observations and recommendations to the Contracting Officer.
6. The Contractor should forward copies of each progress and technical report specified in the contract to your Office and should forward other copies in accordance with instructions issued by the Scientific Officer.
7. The Contractor is aware of his assignment since the face page of the contract lists your Office as the Administrative Office.

(b) (6)

E. F. BLEDSOE

CERTIFICATION OF RESPONSIBLE CONTRACTOR

NR # 048-216/9-3-65 or Requisition # _____

1. The proposed contractor, University of Maryland

- (a) is a manufacturer or regular dealer. (No)
- (b) has adequate financial resources, or the ability to secure such resources. (Yes)
- (c) has the necessary experience, organization, and technical qualifications, and has or can acquire the necessary facilities (including probable subcontractor arrangements) to perform the proposed contract. (Yes)
- (d) is able to comply with the required delivery or performance schedule. (Yes)
- (e) has a satisfactory record of performance, integrity, judgment, and skills. (Yes)
- (f) is otherwise qualified and eligible to receive an award under applicable laws and regulations. (Yes)

2. Was a pre-award survey required. (No)

A pre-award survey was required and was obtained with favorable/unfavorable (cross out one) comments. If unfavorable, give reasons for over-ruling.

(b) (6)

Contract Specialist

In accordance with the requirements of ASPR 1-904, I hereby certify that the proposed contractor for this procurement is responsible.

(b) (6)

Contracting Officer

C. W. HARTLEY

PRE-AWARD CONTRACT PATENT RIGHTS DETERMINATION
NAVS0 5870/15 (Rev. 5-65)

One copy of this form, with signatures as indicated, should accompany the research procurement request to the Contracting Officer (for New Work, Expansions and Equipment Loans).

PROCUREMENT DOCUMENT (Contract, requisition or other no.)

Univ of Maryland
Contract NOV 19
5144 (00)

NR

049-216

I. PURPOSE OF THE PROPOSED PROCUREMENT

	YES	NO		YES	NO
1. Is a principal purpose of the proposed contract, either by itself or as one of a series of directly related contracts, to create, develop or improve an end item intended for use in the civilian economy? (Need not necessarily require delivery of the end item. End item may be a product, a process or data.)		X	5. Is the contract for procurement in a field of science or technology in which the Government has been the principal developer of the field? (The fact that the Government has been the principal developer of a specific piece of hardware does not make the Government the principal developer in a field of science which encompasses the piece of hardware.)		X
2. Is a principal purpose of the proposed contract, either by itself or as one of a series of directly related contracts, to create, develop or improve an end item which will be required for use by the general public by a Government regulation?		X	6. Does the contract require that the contractor provide services for the operation of a Government-owned research or production facility and perform experimental, developmental or research work at that facility?		X
3. Is a principal purpose of the contract directly concerned with public health or public welfare (as distinguished from a predominantly military purpose)?		X	7. Does the contract require contractor to coordinate and direct the work of others (as distinguished from the normal contractor-subcontractor relationship) which might result in a potential organizational conflict of interest?		X
4. Is the contract for procurement in a field of science or technology in which there has been little significant experience outside of work funded by the Government? (The fact that the Government has been the principal funder of a specific piece of hardware does not make the Government the principal funder in a field of science which encompasses the piece of hardware.)		X	REMARKS		

BRANCH HEAD (Signature)

(b) (6)

RICHARD H. WILCOX

ACTIVITY

0104/437

DATE

9/3/65

II. STATUS OF PROSPECTIVE CONTRACTOR

	YES	NO		YES	NO
1. (a) Is contractor an educational or non-profit institution?	X		4. (b) Is contractor regularly engaged in the sale or licensing of such products or services to—		
(b) If the answer to (a) is "Yes", has contractor's patent policy been approved by Department of Defense?	X		the U.S. general public (including business concerns)		
ANSWER #2, 3 AND 4 ONLY IF ANSWER TO QUESTION 1(a) IS "NO".			the U.S. Government		
2. (a) Is contractor a "newly formed" research and development organization?			foreign governments		
(b) Is contractor a "new" independent research and development division or a subsidiary of an older organization?			foreign nationals (including business concerns)		
NOTE: An organization under 2(a), or division or subsidiary under 2(b), established more than five years shall NOT be considered "newly formed" or "new".			(c) Has contractor developed non-governmental commercial markets for inventions in an area directly related to the field of technology which includes the work called for by this procurement request?		
3. If the answer to 2(a) or 2(b) is "yes", does contractor have a definite program for establishing a non-governmental commercial position? (If answer is "Yes", contractor should be required to define his program.)			5. If 4(a), (b) or (c) are answered "Yes", give basis for answer. (Attach separate page if additional space is needed.)		
4. (a) Is contractor a manufacturer or source of products or services in an area directly related to a field of technology which includes work called for under this request?					

CONTRACT SPECIALIST (Signature)

(b) (6)

ACTIVITY

DATE

10-18-65

III. PATENT COUNSEL EVALUATION

If Question 4 or 5, in Part I, is answered "Yes", would contractor be likely to get a preferred or dominant commercial position if he were permitted to acquire title to inventions under the contract?	<input type="checkbox"/> YES <input type="checkbox"/> NO	REMARKS The contractor's patent policy has been approved by DOD. Accordingly, the Patent Rights (License) clause is appropriate.
		(b) (6)
		ACTIVITY ONR/321
		DATE 10/19/65

IV. CONTRACTING OFFICER'S DETERMINATION

Patent Rights clause as indicated below shall be included in this contract:

☐

ASPR 9-107.5(a) - Title

☒

ASPR 9-107.5(b) - License

☐

ASPR 9-107.5(c) - Deferred

CONTRACTING OFFICER (Signature)

(b) (6)

ACTIVITY

DATE

10/22/65

CLEARANCE MEMORANDUM

NR 049-216/9-3-65
Contract Number: 5144(00)

UNCLASSIFIED

16 November 1965

Information Systems Branch
Mathematical Sciences Division
Office of Naval Research

University of Maryland
Computer Science Center
College Park, Maryland

1. Statement of Facts

On 28 July 1965 the Contractor submitted an unsolicited written proposal to conduct research on the theory of image processing for a one year period commencing 1 December 1965 and requested funds in the amount of \$1,225.00 to support the work. In view of the very limited nature and scope of the research a fixed price contract will be negotiated.

The Office of Naval Research, Information Systems Branch, Mathematical Sciences Division reviewed the Contractor's proposal from a technical standpoint, approved the same and submitted Procurement Request NR 049-216, dated 3 September 1965, in the amount of \$1,225.00 to support the project for the period requested by the Contractor and recommended that an appropriate contract be negotiated.

2. Description of the Work

The Contractor will conduct research on the theory of image processing. This research will lead to the preparation of a unified, systematic treatment of concepts and mathematical techniques of pictorial data processing.

3. Analysis of the Price

Travel	\$ 500.00
Typing	500.00
Overhead 45% of typing costs	<u>225.00</u>
Total	\$ 1,225.00

Items for travel and typing constitute the largest and only items of expense and have been set forth in adequate detail for budgetary purposes. The overhead rate of 45 percent of the typing costs is acceptable for purposes of this fixed price contract and has been approved by Code 603.

4. Period of Performance

Research under this contract will be conducted during the period 1 December 1965 through 30 November 1966.

5. Other Pertinent Information

The Contractor stated that no advertising costs prohibited by Public Law 88-149 have been included in its budget.

The contract will include all currently required clauses and modifications.

6. Authority and Reasonableness

Authority for the negotiation of the proposed contract is 10 U.S.C. 2304 (a)(5) since it is with an educational institution. In the opinion of the undersigned, the terms and conditions of the proposed contract, as outlined above, appear to be fair, reasonable and in the interest of the Government.

(b) (6)

L.A. DURKIN
Contract Specialist